Every year, more than 750,000 Americans have a stroke or brain attack. A stroke occurs when a blood clot blocks a blood vessel or artery, or when a blood vessel breaks. These things can interrupt blood flow to an area of the brain, cutting off vital supplies of oxygen. This lack of blood and oxygen can kill brain cells that control such things as moving, thinking, speaking and breathing.

To check if someone is having a stroke, ask the person to give you five. Things to look for or ask:

Give me 5 for stroke

***Walk*.....Is their balance off?**

***Talk*.....Is their speech slurred or face droopy?**

***Reach*....Is one side weak or numb?**

***See*.....Is their vision all or partially lost?**

***Feel*.....Is their headache severe?**

For more information please contact:

South Carolina Department of Health
and Environmental Control

Heart Disease and Stroke Prevention
(803) 545-4500
www.scdhec.gov/hdsp

or

National Heart, Lung and Blood Institute (NHLBI)
Health Information Center
(301) 592-8573
www.nhlbi.nih.gov/chd

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South Carolina Department of Health
and Environmental Control

www.scdhec.gov

We promote and protect the health of the public and the environment.

National Stroke Association™
www.stroke.org

ML-025402 2/09

Stroke & Cholesterol

Heart Disease & Stroke Prevention

Strengthening the Chain of Survival

Give me 5 for stroke

There are many things that can cause a stroke. One of these is the gradual build-up of cholesterol, called plaque.

What is cholesterol?

Cholesterol is a soft, waxy fat (lipid) that is made by the body. It is found in the bloodstream and in all of your body's cells. Your body needs cholesterol to form cell membranes, some hormones and vitamin D. Cholesterol is also found in some foods, such as eggs, meats and dairy products.

How does cholesterol affect stroke risk?

Cholesterol or plaque build-up in the arteries can block normal blood flow to the brain and cause a stroke. High cholesterol may also increase your risk for stroke by raising your risk for heart disease, a stroke risk factor.

Because cholesterol does not dissolve in the blood on its own, it must be carried to and from cells by particles called lipoproteins.There are two types of lipoproteins: low-density lipoproteins (LDL) and high–density lipoproteins (HDL). Recent studies show that high levels of LDL ("bad") cholesterol and triglycerides (blood fats) raise the risk of ischemic (clot caused) stroke. Plaque can also increase risk of a ministroke called transient ischemic stroke (TIA) where stroke symptoms go away within 24 hours. High levels of HDL ("good") cholesterol also may reduce stroke risk.

What is LDL cholesterol?

Due to its artery-clogging properties, LDL cholesterol is often referred to as "bad" cholesterol. LDL carries cholesterol into the blood stream and to your tissues where your body can store it.This type of cholesterol can cause plaque build-up, a thick, hard substance that can clog arteries.The plaque can eventually cause arteries to narrow or become blocked completely, causing stroke or heart attack.

What is HDL cholesterol?

HDL carries cholesterol away from the tissues to the liver, where it is filtered out of the body. High levels of HDL, also called good cholesterol, seem to protect against stroke and heart attack. A low HDL level may indicate a greater stroke or heart disease risk.

What do my cholesterol levels mean?

Cholesterol levels are measured in milligrams (mg) of cholesterol per deciliter (dL) of blood. Combined LDL and HDL cholesterol should not equal more than 200 mg/dL. If the total cholesterol is more than 200 or if the HDL level is less than 40, risk of stroke and heart disease could increase.

General Cholesterol Guidelines

Total Cholesterol

Less than 200 mg/dL .....Desirable
200-239 mg/dL.....Borderline high
240 mg/dL and above .....High

LDL Cholesterol

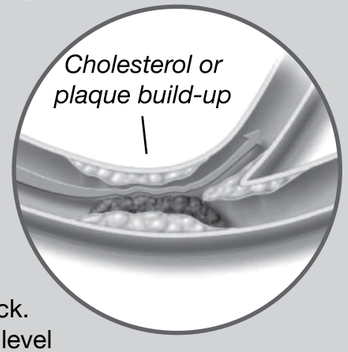
Less than 100 mg/dL .....Optimal (ideal)
100-129 mg/dL.....Near optimal/above optimal
130-159 mg/dL.....Borderline high
160-189 mg/dL.....High
190 mg/dL or above.....Very high

HDL Cholesterol

Less than 40 mg/dL .....Major heart disease factor
60 mg/dL and above .....Gives protection against heart disease

What are the right levels for me?

The best cholesterol levels for you may depend on several things. Having other risk factors may change your cholesterol goal. Also, cholesterol goals may be different for people who have already had a stroke or heart attack. Ask your doctor what cholesterol level is right for you.



What increases cholesterol levels?

Many things can affect cholesterol levels. Some you can change and some you can't.

Things you can change:

- Diet – Foods high in saturated fat and cholesterol can increase cholesterol levels.
- Weight – Being overweight can increase your cholesterol levels.
- Exercise – People who are not active tend to have higher cholesterol levels.

Things you cannot change:

- Family history – If someone in your family has high cholesterol, you are more likely to have high cholesterol.
- Age – Most people experience an increase in cholesterol levels until the age of 65.
- Gender – Women under age 50 tend to have lower cholesterol and those in menopause have higher levels.

How often should I be checked for high cholesterol?

- All adults age 20 and older should have their cholesterol checked at least once every five years.
- Cholesterol should be checked more frequently in men older than 45 and women older than 55.
- People with a family history of high cholesterol should also be checked more often.

How do I check my cholesterol?

Your doctor will give you a simple blood test.

What can I do to manage my cholesterol?

Eat a healthy diet

- Eat low-fat foods – especially foods low in saturated fat. This includes vegetables, fruits, lean meats such as chicken and fish, low-fat dairy products and a limited number of egg yolks.
- Bake, broil, steam or grill your food (instead of frying).
- Add fiber to your diet, including whole grains or dried beans.

Good eating habits not only can help lower your cholesterol but also may reduce other stroke risk factors such as high blood pressure and being overweight.

Include exercise in your daily routine

- Be physically active at least 30 minutes for five or more days a week.
- Every little bit of exercise – a brisk walk, bicycle ride, swim or yard work – can improve your health.
- Exercise with a friend.
- Make small changes: Take the stairs instead of the elevator or park farther out in the parking lot.
- Check with your doctor before starting any exercise program.